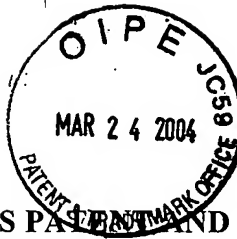


Express Mail Label No.: EV334317802US  
Date of Deposit: March 24, 2004



03-25-04  
Attorney Docket No. 27996-122

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/688,642  
Applicant(s) : Mohamed El-Hennawey, *et al.*  
Filed : October 17, 2003  
TC/A.U. : 2661  
Examiner : Not Yet Assigned  
New Docket No. : 27996-122  
Customer No. : 35437  
Title : Method and Apparatus for Fast DTMF Detection

---

March 24, 2004  
New York, New York

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL**

Transmitted herewith for filing in the present application are the following documents:

1. Power of Attorney for Patent Application with copy of Assignment (14 pgs.); and
2. a Return Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at 212/935-3000, New York, New York. A duplicate copy of this transmittal letter is enclosed.

Respectfully submitted,

Richard M. Lehrer, Reg. No. 38,536  
Attorney for Applicants  
c/o Mintz Levin Cohn Ferris  
Glovsky & Popeo, P.C.  
Chrysler Center, 666 3rd Avenue, 24<sup>th</sup> Floor  
New York, New York 10017  
Tel. No.: (212) 935-3000  
Fax No.: (212) 983-3115



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/688,642  
Applicant(s) : Mohamed El-Hennawey, *et al.*  
Filed : October 17, 2003  
TC/A.U. : 2661  
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A duplicate copy of this transmittal letter is enclosed.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Richard M. Lehrer".

Richard M. Lehrer, Reg. No. 38,536  
Attorney for Applicants  
c/o Mintz Levin Cohn Ferris  
Glovsky & Popeo, P.C.  
Chrysler Center, 666 3rd Avenue, 24<sup>th</sup> Floor  
New York, New York 10017  
Tel. No.: (212) 935-3000  
Fax No.: (212) 983-3115



PATENT/DOCKET NO. 38898-0043

CUSTOMER NO. \_\_\_\_\_

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Mohamed El-Hennawey et al. § Attorney Docket No. 38898-0043

Serial No.: 10/688,642

Filed: October 17, 2003

Title: Method and Apparatus for Fast DTMF  
Detection

§  
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Group Art Unit: n/a

Examiner: n/a

Commissioner for Patents  
Washington, D.C. 20231

POWER OF ATTORNEY FOR  
PATENT APPLICATION

Nortel Networks Limited, a Canadian corporation having principal offices at:

**Nortel Networks Limited**  
2351 Boulevard Alfred-Nobel  
St. Laurent, Quebec H4S 2A9, Canada

the owner by assignment of the entire right, title and interest to the invention for Method and Apparatus for Fast DTMF Detection, by Mohamed El-Hennawey et al. and in and to the application for patent and any Letters Patent, whether domestic or foreign, that may issue thereon, by virtue of the assignment (check as applicable):

\_\_\_ Recorded Concurrently Herewith  
\_\_\_ Recorded on \_\_\_\_\_  
\_\_\_ Recorded at Reel \_\_\_\_\_ Frame \_\_\_\_\_  
 x  Copy Attached

hereby appoints the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

**all attorneys associated with customer number 35437**

its attorneys with full power of substitution and revocation, to prosecute all domestic and foreign patent applications, including PCT and EPO filings, relating to said invention and to transact all business connected therewith, including signing of all papers on its behalf and making alterations and amendments.

Address all correspondence and telephone calls to:

**Mr. Richard Lehrer**  
**Mintz Levin Cohn Ferris Glovsky and Popeo PC**  
**Chrysler Center**  
**666 Third Avenue**  
**New York, New York 10017**  
**U.S.A.**

**Telephone: 1-212-935-3000**  
**Facsimile: 1-212-983-3115**

The undersigned is the representative for the Assignee of the entire right, title, and interest in the patent application identified above, and is authorized to act on behalf of the Assignee.

**NORTEL NETWORKS LIMITED**

March 12, 2004

Date

Name

Jeff M. Measures

Signature

Intellectual Property Counsel

Title

**UNITED STATES OF AMERICA**

**ASSIGNMENT**

WHEREAS, **MOHAMED EL-HENNAWEY** whose full post office address is, **19 Kensington Crescent, Belleville, Ontario, K8P 4T4, Canada**; **CAN LIAO** whose full post office address is **32 Spruce Gardens, Belleville, Ontario, K8N 5Y6, Canada**; **JOACHIM FOURET** whose full post office address is \_\_\_\_\_; and **MASOUD AHMADI** whose full post office address is \_\_\_\_\_ have invented certain new and useful improvements in a

**METHOD AND APPARATUS FOR FAST DTMF DETECTION**

for which they are executing on even date herewith, an Application for Letters Patent of the United States of America;

AND WHEREAS, **NORTEL NETWORKS LIMITED**, a corporation organized and existing under the laws Canada, having its head office and principal place of business at the **2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, H4S 2A9, Canada** has acquired from the above inventors their right, title and interest in and to the said invention for the United States of America, Canada and all other countries, and in the said application and any Letters Patent that may be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar to them in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the said **MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET** and **MASOUD AHMADI** do hereby confirm that they have sold, assigned and transferred, and by these presents do sell, assign and transfer to the said **NORTEL NETWORKS LIMITED**, its successors and assigns, their right, title and interest in and to the said invention for the United States of America, Canada and for all other countries in and to said application for Letters Patent of the United States of America, and in and to any divisions,

continuations, continuations-in-part, and extensions of said application, and in and to any applications for Letters Patent in any other countries with respect to said invention, and in and to any Letters Patent that may be obtained therefor in the United States of America, Canada and in any other country;

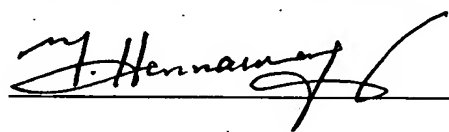
AND the said **MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET** and **MASOUD AHMADI** hereby covenant and agree to do all such things and to execute without further consideration such further lawful documents, assurances, application, and other instruments as may reasonably be required to obtain Letters Patent for the said invention and vest the same in **NORTEL NETWORKS LIMITED**, its successors and assigns.

**MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET** and **MASOUD AHMADI** hereby authorize and request the Commissioner of Patents & Trademarks to issue said United States Patent to **NORTEL NETWORKS LIMITED**, for its sole use and behalf, and for the use and behalf of its legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by them had this assignment not been made.

Executed on this 23<sup>rd</sup> day of October, 2003 at

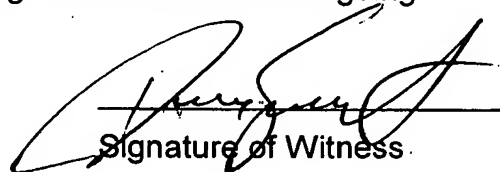
Belleville, ON, CANADA

**MOHAMED EL-HENNAWEY**



**Declaration of Witness**

I, Dave Sargent, hereby declare that I was personally present and did see the above named person sign and execute the forgoing



Signature of Witness

Executed on this 23<sup>rd</sup> day of October, 2003 at

Belleville, ON, Canada

CAN LIAO

Can Liao

**Declaration of Witness**

I, Jason Woodside, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

Jason Woodside  
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

JOACHIM FOURET

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

**MASOUD AHMADI**

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness



**UNITED STATES OF AMERICA**

**ASSIGNMENT**

WHEREAS, **JOACHIM FOURET** whose full post office address is **895 High Road, London, N12 8QA, United Kingdom**; **MASOUD AHMADI** whose full post office address is \_\_\_\_\_; **MOHAMED EL-HENNAWEY** whose full post office address is, **19 Kensington Crescent, Belleville, Ontario, K8P 4T4, Canada**; and **CAN LIAO** whose full post office address is **605-249 Bridge Street West, Belleville, Ontario, K8P 4V4, Canada** have invented certain new and useful improvements in a

**METHOD AND APPARATUS FOR FAST DTMF DETECTION**

for which they are executing on even date herewith, an Application for Letters Patent of the United States of America;

AND WHEREAS, **NORTEL NETWORKS LIMITED**, a corporation organized and existing under the laws Canada, having its head office and principal place of business at the **2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, H4S 2A9, Canada** has acquired from the above inventors their right, title and interest in and to the said invention for the United States of America, Canada and all other countries, and in the said application and any Letters Patent that may be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar to them in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the said **MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET and MASOUD AHMADI** do hereby confirm that they have sold, assigned and transferred, and by these presents do sell, assign and transfer to the said **NORTEL NETWORKS LIMITED**, its successors and assigns, their right, title and interest in and to the said invention for the United States of America, Canada and for all other countries in and to said application for Letters Patent of the United States of America, and in and to any divisions,

continuations, continuations-in-part, and extensions of said application, and in and to any applications for Letters Patent in any other countries with respect to said invention, and in and to any Letters Patent that may be obtained therefor in the United States of America, Canada and in any other country;

AND the said **MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET** and **MASOUD AHMADI** hereby covenant and agree to do all such things and to execute without further consideration such further lawful documents, assurances, application, and other instruments as may reasonably be required to obtain Letters Patent for the said invention and vest the same in **NORTEL NETWORKS LIMITED**, its successors and assigns.

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X Executed on this 17<sup>th</sup> day of December, 2003 at

X 895, High Road N12 8QA London

**JOACHIM FOURET**

X 

**Declaration of Witness**

X I, MASOUD Ahmadi, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

X   
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

**MASOUD AHMADI**

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

**MOHAMED EL-HENNAWEY**

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

**CAN LIAO**

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

**UNITED STATES OF AMERICA**

**ASSIGNMENT**

WHEREAS, **JOACHIM FOURET** whose full post office address is **895 High Road, London, N12 8QA, United Kingdom**; **MASOUD AHMADI** whose full post office address is **3 Pyttfield, Harlow, Essex CM17 9AA, United Kingdom**; **MOHAMED EL-HENNAWEY** whose full post office address is, **19 Kensington Crescent, Belleville, Ontario, K8P 4T4, Canada**; and **CAN LIAO** whose full post office address is **605-249 Bridge Street West, Belleville, Ontario, K8P 4V4, Canada** have invented certain new and useful improvements in a

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AND the said **MOHAMED EL-HENNAWEY; CAN LIAO; JOACHIM FOURET** and **MASOUD AHMADI** hereby covenant and agree to do all such things and to execute without further consideration such further lawful documents, assurances, application, and other instruments as may reasonably be required to obtain Letters Patent for the said invention and vest the same in **NORTEL NETWORKS LIMITED**, its successors and assigns.

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Executed on this ..... day of ....., 2003 at

.....

**JOACHIM FOURET**

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

X Executed on this 28 day of Jan, 2004 at  
MA

X Harlow, Essex CB

MASOUD AHMADI

X M. Ahmadi

**Declaration of Witness**

X I, Amir Masood KARSHENAS, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

X   
Signature of Witness

Executed on this 28 day of Jan, 2004 at

.....

MOHAMED EL-HENNAWEY

\_\_\_\_\_

**Declaration of Witness**

I, \_\_\_\_\_, hereby declare that I was personally present and did see the above named person sign and execute the forgoing

\_\_\_\_\_  
Signature of Witness

Executed on this ..... day of ....., 2003 at

.....

**CAN LIAO**

\_\_\_\_\_

**Declaration of Witness**

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Signature of Witness